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Manual PFA 9111 video conferencing loudspeaker

Version 1.0



PFA 9111 video conferencing loudspeaker with RS 232/485 communication

The PFA 9111 loudspeaker is especially designed for video conferencing. The loudspeaker is optimized for speech sound reproduction. The built in amplifier has a RS 232/485 communication feature which makes remote control and operation possible. This can be in combination with other video conferencing equipment.

Made in The Netherlands
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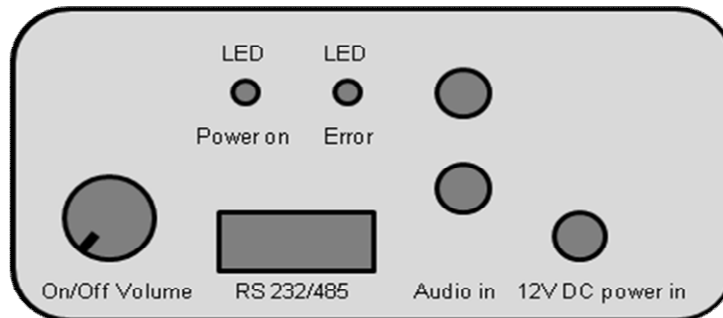
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Subject to printing errors and technical amendments .

Content

- 1x PFA 9111 loudspeaker
- 1x manual
- 1x 12V – 2A power supply
- 1x Stereo audio cable (cinch – jack3.5)
- 4x Anti skid pads

Connecting PFA9111



- Only use the supplied power supply.
- First connect the loudspeaker to the audio source with the supplied audio cable.
- Then connect the 12V plug from the power supply.
- Only then plug the power supply into a mains source.

Manual operation:

- Switching on and volume up: turn volume knob right, clockwise.
- Switching off and volume down: turn volume knob left, counter clockwise.
- The amplifier will not switch on immediately after turning the volume knob, it will wait till the green LED has flashed once. This is part of the power saving function.
- When the amplifier is switched on the green and red LED will flash once. After that the green LED will stay on.
- When the amplifier is switched off, the green LED will flash every 3-4 seconds as stand-by indication. This is also the RS232/485 monitor moment.

RS232/RS485 operation:

- When the amplifier is switched on (green LED on), it will scan the RS232 and RS485 ports on activity.
- When the amplifier detects activity on one of the ports it will switch to this port. The other port will be ignored as long as power is on.
- Scanning of the ports will be resumed only when the power is switched off and on again.
- When the amplifier is RS232 / RS485 operated, the position of the volume knob will be ignored.
- When the amplifier is switched off via the RS232 / RS485 ports it will scan these ports every 3-4 seconds on new activities.

RS232 / RS485 Protocol:

- The amplifier is operated by readable ascii commands.
- These commands can, as example, be send and viewed by a terminal emulation program.
 - o Baudrate: 9600
 - o 8 Bits (8n1)
- The operation is based on the Basic Control Structure (BCS) Protocol of AMX/Crestron.

Supporting BCS commands:

- BCS commands are used as much as possible, however for some functions there exist no BCS codes, for these functions dedicated * commandos are used.

Command	Command	Response	Protocol
Volume control	COVA^^T	COVA^^T	BCS
Volume status request	SOVAT	SOVAT(^^)	BCS
Switch off	COVMT	COVMT	BCS
Switch on	COVUT	COVUT	BCS
Status request	SOST	SOST	B15
Put amplifier in potentiometer mode	COPT	COPT	B15

- ^^ Volume in dB (value -100 tot 0) 0 is maximum amplification.
- At -100 the amplifier will be switched in stand-by.
- When no value is set, value 0 will be used (attention this is max. volume)

Status replies:

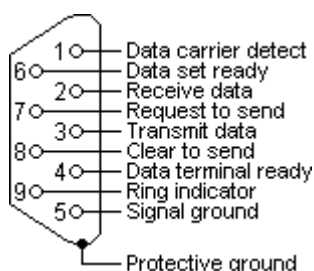
Answer	Meaning
Ok	Everythingh working okay
E	Amplifier IC is giving an error signal.
W	Amplifier IC is giving a Warning signal.
EW	Amplifier IC is giving both an Error and a Warning signal.

Connections data connector:



Pin Number	Pin 1 (Left)	Pin2	Pin3	Pin4	Pin5 (Right)
Amplifier function	GND	RS232 TX	RS232 RX	RS485 + Non inverting	RS485 – Inverting
Function Host (PC)	GND	Receive data	Tansmit Data		
SubD9 RS232	Pin 5	Pin 2	Pin 3	NVT	NVT
SubD9 RS485	Pin 5	NVT	NVT	Pin 1	Pin 2

RS232 SubD 9 pinout (pin connector male/front view):



RS485 SubD 9 pinout:

Attention the RS485 pinout for SubD9 is not standardized. It is important to check documentation of the RS485 interface before connecting.

Recommended is an UT-850 USB-RS485 cable, this has SubD9 pinout connections as in the diagram:

RS-485/RS-422 output signal and pin assignment

DB9 (PIN)	Output Signal	RS-422 All full-Duplex	RS-485 Half full-Duplex
1	T/R+	Transmit (A+)	RS-485 (A+)
2	T/R-	Transmit (B-)	RS-485 (B-)
3	RXD+	Receive (A+)	Empty
4	RXD-	Receive (B-)	Empty
5	GND	GND	GND
6	N/A		
7	N/A		
8	N/A		
9	N/A		

Specifications PFA9111:

Type of amplifier: Class D

Output power: 2 x 25 Watt

Frequency range: 40-20000 Hz

Filtersystem: acoustic (Patent)

Loudspeaker system: 1½ weg basreflex

Audio input: stereo cinch

Operating voltage: 100-230 Volt, 50/60 Hz

Weight: 2 kg